

What is claimed is:

1. A time-matching system comprising:

a first terminal device receiving a GPS (Global Positioning System) data from a GPS satellite; and

5 a communications relay device relaying communications between said first terminal device and a second terminal device on a wireless communications network,

wherein said first terminal device executes a
10 first correction procedure on a satellite time-data of said GPS data to generate a first time-data, and transmits said first time-data to said communications relay device,

said first correction procedure being based on a
15 time delay in communications between said GPS satellite and said first terminal device,

wherein said communications relay device receives said first time-data, executes an intermediate correction procedure on said first time-data to
20 generate an intermediate time-data, and transmits said intermediate time-data to said second terminal device, and

said intermediate correction procedure being based on a time delay in communications between said
25 first terminal device and said communications relay device.

2. The time-matching system according to claim 1, wherein said first terminal device adds to said first time-data, a priority-data indicative of reliability of said first time-data in said first correction

5 procedure, and

said communications relay device determines whether reception of said first time-data is permitted or not based on an address of said first terminal device, and determines whether said intermediate
10 correction procedure is permitted or not based on said priority-data.

3. The time-matching system according to claim 2, wherein said communications relay device adds to said
15 intermediate time-data, said priority-data in said intermediate correction procedure, and

said second terminal device receives said intermediate time-data, determines whether a second correction procedure is permitted or not based on said
20 priority-data, executes said second correction procedure on said intermediate time-data to generate a second time-data, and calibrates a clock of said second terminal device based on said second time-data,

said second correction procedure being based on a
25 time delay in communications between said communications relay device and said second terminal device.

4. A terminal device comprising:

a GPS receiver receiving a GPS-data from a GPS satellite and outputting said GPS-data;

a data processing device connected to said GPS
5 receiver and receiving said GPS-data from said GPS-receiver,

wherein said data processing device extracts a satellite time-data from said GPS-data, executes a correction procedure on said satellite time-data to
10 generate a corrected time-data, and transmits said corrected time-data to a destination on a wireless communication network,

said correction procedure being based on a time delay in communications between said GPS satellite and
15 said GPS receiver.

5. The terminal device according to claim 4, wherein said data processing device adds to said corrected time-data, a priority-data indicative of reliability
20 of said corrected time-data, and transmits said corrected time-data to said destination.

6. A communications relay device relaying wireless communications between a first terminal device and a
25 second terminal device, in which said first terminal device receives a GPS-data from a GPS-satellite, and generates from said GPS-data a first time-data

including a priority-data indicative of reliability of said first time-data, comprising:

a priority comparing unit receiving said first time-data from said first terminal device and

5 permitting an intermediate correction procedure on said first time-data based on said priority-data;

a delay calculating unit executing said intermediate correction procedure on said first time-data to generate an intermediate time-data, said
10 intermediate correction procedure being based on a time delay in communications between said first terminal device and said delay calculating unit;

a clock; and

a time setting unit calibrating said clock based
15 on said intermediate time-data,

wherein said intermediate time-data is transmitted to said second terminal device.

7. The communications relay device according to
20 claim 6, wherein said priority comparing unit determines whether reception of said first time-data is permitted or not based on an address of said first terminal device, and determines whether said intermediate correction procedure is permitted or not
25 based on said priority-data.

8. A terminal device communicating with another

terminal device through a wireless communications relay device which executes an intermediate correction procedure on a satellite time-data provided by a GPS satellite to generate an intermediate time-data

5 including a priority-data indicative of reliability of said intermediate time-data, comprising:

a priority comparing unit receiving said intermediate time-data from said wireless communications relay device and permitting a
10 correction procedure on said intermediate time-data based on said priority-data;

a delay calculating unit executing said correction procedure on said intermediate time-data to generate a corrected time-data, said correction
15 procedure being based on a time delay in communications between said wireless communications relay device and said delay calculating unit;

a clock; and

a time setting unit calibrating said clock based
20 on said corrected time-data.

9. A time-matching method comprising:

(a) a first terminal device generating a first time-data by executing a first correction procedure on
25 a satellite time-data received from a GPS satellite, said first correction procedure being based on a time delay in communications between said GPS-satellite and

said first terminal device;

(b) said first terminal device calibrating a clock of said first terminal device based on said first time-data;

5 (c) said first terminal device transmitting said first time-data wirelessly to a communications relay device;

(d) said communications relay device receiving said first time-data and generating an intermediate
10 time-data by executing an intermediate correction procedure on said first time-data, said intermediate correction procedure being based on a time delay in communications between said first terminal device and said communications relay device; and

15 (e) said communications relay device transmitting said intermediate time-data to a second terminal device different from said first terminal device.

10. The time-matching method according to claim 9,
20 wherein said (a) generating includes:

(a1) adding to said first time-data a priority-data indicative of reliability of said first time-data in said first correction procedure,

wherein said (d) receiving and executing
25 includes:

(d1) said communications relay device determining whether reception of said first time-data is permitted

or not based on an address of said first terminal device; and

(d2) said communications relay device determining whether said intermediate correction procedure is permitted or not based on said priority-data.

11. The time-matching method according to claim 9 further comprising:

(f) said second terminal device receiving said intermediate time-data and generating a second time-data by executing a second correction procedure on said intermediate time-data, said second correction procedure being based on a time delay in communications between said communications relay device and said second terminal device; and

(g) said second terminal device calibrating a clock of said second terminal device based on said second time-data.

12. The time-matching method according to claim 11, wherein said (f) generating includes (f1) determining whether said second correction procedure is permitted or not based on said priority-data.